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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/907,021	07/17/2001	George L. Markley	DKT 00040	6078

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Borg Warner Inc.
Powertrain Technical Center, Patent Department
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EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/907,021

Applicant(s)

MARKLEY ET AL.

Examiner

Timothy P McAnulty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,8,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1,4-6,8,11, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Regarding claim 1, it is unclear as to what the two teeth of each of the drive links "are adjacent to each along the chain direction" as recited in line 15 of claim 1.
- b. Regarding claim 6, it is unclear as if the recitation of "the sprocket" in line 16 of claim 6 refers to the front drive sprocket with which a front side of the chain meshes or to another sprocket with which the chain would mesh on a back side of the chain, opposite the front side of the chain.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1,4,5,11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luce in view of Belcher.

Regarding claims 1-9, Luce discloses in figures 1 and 2, a sprocket and power transmission chain comprising a sprocket engaging a transmission chain, said sprocket having a plurality of series of teeth 3,4 wherein teeth of axially adjacent series are circumferentially offset from each other and a transmission chain having a first series of links having drive links and guide links and a second series

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of links having drive links and guide links wherein the first series and the second series are interleaved along a chain direction so that links of the second series are positioned between and extending adjacent to links of the first series. Luce further discloses the links of the first series and the links of the second series pivotally connected to one another via pins extending through apertures in each link but does not disclose said drive links defining teeth on a first side of said drive links and drive flanks on a second side opposite of said first side of said drive links. However, Belcher et al. teaches in figures 1-4, a transmission chain comprising drive links wherein each drive link defines teeth 5 on a first side of said drive link and includes two drive flanks (not numbered) on a second side opposite said first side of drive link. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Luce in view of the teachings of Belcher et al. to include teeth on a first side of the drive links to more securely engage the transmission chain to the sprocket and to include drive flanks on the drive links on a side opposite a side defining teeth so as to enable the transmission chain to drive sprockets with both a first toothed side of the chain and a second drive flanked side of the chain.

Regarding claims 11 and 12, there is reason to believe, based on the similarity of material and structure, that the functional limitation that the drive links provide uniform stiffness across the row of links may be an inherent characteristic of the reference combination set forth above. [W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied upon. *In re Best*, 562 F.2d 1252, 195 USPQ 430,

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433 (CCPA 1977). Accordingly, the burden is placed upon the applicant to prove that such a limitation is not an inherent characteristic of the reference combination.

5. Claims 1,4-6,8,11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luce in view of Kozakura et al.

Regarding claims Luce discloses in figures 1 and 2, a sprocket and power transmission chain comprising a sprocket engaging a transmission chain, said sprocket having a plurality of series of teeth 3,4 wherein teeth of axially adjacent series are circumferentially offset from each other and a transmission chain having a first series of links having drive links and guide links and a second series of links having drive links and guide links wherein the first series and the second series are interleaved along a chain direction so that links of the second series are positioned between and extending adjacent to links of the first series. Luce further discloses the links of the first series and the links of the second series pivotally connected to one another via pins extending through apertures in each link but does not disclose said drive links defining teeth on a first side of said drive links and drive flanks on a second side opposite of said first side of said drive links. However, Kozakura et al. teaches in figures 1-3, a transmission chain comprising drive links wherein each drive link includes two teeth (t) on a first side of said drive link which define a region therebetween to accept a sprocket tooth and includes two drive flanks (not numbered) on a second side opposite said first side of drive link. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Luce in view of the teachings of Kozakura et al. to include teeth on a first side of the drive links to more securely engage the transmission chain to the sprocket and to include drive flanks on the drive links on a side opposite a side defining teeth so as to enable the

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transmission chain to drive sprockets with both a first toothed side of the chain and a second drive flanked side of the chain.

Regarding claims 11 and 12, there is reason to believe, based on the similarity of material and structure, that the functional limitation that the drive links provide uniform stiffness across the row of links may be an inherent characteristic of the reference combination set forth above. [W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied upon. *In re Best*, 562 F.2d 1252, 195 USPQ 430, 433 (CCPA 1977). Accordingly, the burden is placed upon the applicant to prove that such a limitation is not an inherent characteristic of the reference combination.

Response to Arguments

6. Applicant's arguments with respect to claims 1,4,5,11, and 12 have been fully considered but they are not persuasive. As presently claimed, claim 1, does not limit the teeth of the drive links of the first and second series to extend in the same direction but merely limits the teeth to extend in a direction that is perpendicular to both the chain direction and to the first and second lateral directions. Therefore, the teeth of one series can extend in a first direction and the teeth of the other series can project in a direction opposite said first direction. As such the teachings of Belcher are applicable.

7. Applicant's arguments with respect to claims 6 and 8 have been considered but are moot in view of the new ground(s) of rejection. Although Belcher teaches drive links each having teeth wherein said teeth do not all project in the same chain direction, Kozakura et al. teaches such structure.


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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9326 for regular communications and 703.872.9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

 8/12/03
DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600


tpm
August 12, 2003